

Delaware  
Water Supply Coordinating Council  
July 29, 2015  
Final Minutes

**Administrative** - John Barndt, Chair

John called the meeting to order at 10:01 a.m.

- Welcome and Introductions
- Review and Approval of April 29, 2015 Meeting Minutes — Vic Singer moved to accept and Ed Hallock seconded followed by unanimous approval with the one change to add Mr. Esposito to the attendees list for the meeting.
- Status of WSCC Legislation – John thanked everyone for their comments but noted that due to the hectic session, the Department only pursued the extension to January 31, 2022. Additional suggested changes will be pursued in the upcoming session.

**Water Conditions Report** – Stefanie Baxter, DGS

Stefanie provided a handout dated July 27, 2015 of the Northern Delaware Drought Advisory Guidelines as well as status of water conditions in Kent and Sussex Counties. All indicators are good to very good. Chlorides are very low at all stations and are being monitored. Stefanie will update web page with any updated information.

The Aquifer Storage and Recovery status for UWD is 75 mg and 69 mg for the AWC facility (Stefanie will update this from the reported number of 63 MG)

Special update on the situation at the Cannonsville Reservoir – On July 8, 2015 a drilling incident punched into a confined aquifer and released pressure with water gushing to the land surface. As a precaution the water level in the reservoir is being lowered to eliminate any downstream risk of any dam failure. The New York City Commission has done an excellent job in responding and also communicating to the DRBC and states. Because water will be used preferentially from this reservoir due to this incident, the other reservoirs will not be used and water levels in them will remain high.

Kent County conditions not doing quite as good as NCC but all indicators are still normal. Sussex County indicators are normal to above normal.

Stefanie also provided the hydrograph from the USGS Brandywine Creek station 01481500 as being very instructive of the varied hydrologic phenomenon we have been experiencing such as high precipitation events in Jan 2015, the very cold frozen situation through much of Feb 2015 that dampened stream flow, the snowmelt impacts in late March, and the light scattered precipitation of April and May with declining flow followed by a very wet June with associated stream flow recovery.

Stefanie asked if there were any questions. Vic Singer asked if the lower Chlorides in the river were possibly due to the releases from Cannonsville Reservoir and Stefanie felt they likely are.

DGS' full analysis is found on <http://www.dgs.udel.edu>

### **Forecast Synopsis – Dan Leathers, State Climatologist**

Dan presented Weather Summary (see attachment titled Weather Summary and Forecast).

- Jan/June temps degree and half below normal mainly due to the extremely cold February. Exactly same temperatures as the previous year.
- Jan was good month for precipitation, Feb was really cold, March and April precipitation was normal. Big month for precip was June with a 10 inch anomaly (See the USGS hydrograph 01481500 provided by Stefanie). The highest precipitation was in New Castle County.
- August through October over the years the temperature has gone up. El Nino event has started – Forecast from Sept 2015 and continue through winter season. All models are predicting a very strong El Nino event. Dry and cool conditions as we go through the next 3 months.
- Tropical Systems – Do not necessarily need Tropical Systems this year. 12 named storms, 6 named hurricanes. Andrea Maucher asked about Vortex and how it affects weather.
- All models indicate a strong El Nino and for the northeast US that means probably below normal precipitation and below normal temperature. It also means likely a weaker hurricane season.

### **Water Utility Reports (Supply/Demand, Projects)**

- **Artesian Water – Tom DeLorimier** – Quiet summer; ASR – 79 MG injected/ 19 MG withdrawn; 2 projects: new iron treatment plant at Air Park, Carbon treatment unit for Jefferson Farms; Self-sufficiency report provided to DNREC and UD/WRA.
- **Newark – Mark Neimeister** – All systems OK; Reservoir near capacity; Rehabilitating one of the booster stations; Self-sufficiency report provided to DNREC and UD/WRA.
- **New Castle – Jay Guyer** – demands are up slightly from 2014 demands; activated carbon treatment system for PFOS set up and installed with anticipated Sept 1<sup>st</sup> start-up of permanent system; new supply well; self-sufficiency report provided to DNREC and UD/WRA
- **United Water Delaware – Rob Penman** – Demand is at 18.2 MGD from 16.7 MGD; have noted increases in TOC in raw water; maintenance occurring at sluice gate soon; 2 of 4 tanks being painted; SCADA upgrade for the 'south' system; ASR not used during the period.
- **Wilmington – Chris Oh** – Producing 17 MGD and have noted some water quality changes at the Wilmington plant with increased UV and chlorine demand 2-3 times higher; the raceway project commenced on July 17 and that project forces the membrane plant to shut down as it is fed by the raceway. The Porter plant is the facility handling the system which has a design capacity of

36 MGD and is fed by the Wills PS (2 pumps) and/or Hoopes (5 pumps); Self-sufficiency report provided to DNREC and UD/WRA.

- **Tidewater Utilities – Jerry Esposito** – 100 plants all OK; demands for NCC – 0.6MGD, Kent - 0.2 MGD, Sussex – 5.2 MGD; elevated tank for Bayside in Sussex County.
- **Sussex Shores** - Not Present

### **Self-Sufficiency Reporting**

Update from Northern Utilities on Self Sufficiency Reports – John Barndt reported that all 5 systems - UWD, Wilmington, AWC, Newark, New Castle – had provided their reports on time and that all had been posted on the WSCC web site [ <http://www.dnrec.delaware.gov/Admin/Pages/WSCC.aspx> ]. John requested that any comments to be sent to John Barndt, Jerry Kaufmann, and Stefanie Baxter. Vic Singer noted his comments about the degree of detail in the Wilmington report (e.g. releases from Hoopes Reservoir that support the UWD system) and was asked to put these comments in writing.

### **DRBC Water Management Programs** – Ken Najjar, DRBC

Ken provided a presentation to the WSCC on the DRBC, its standing committees, and related items of interest. The DRBC is formed from a 99 year compact that was initiated in 1961 to vote on water rights and was created to resolve disputes over water use in the Basin. There are 800 municipalities throughout Delaware River Basin. The Water Management Advisory Committee has 2-3 meetings a year. Anyone can attend with dates posted on the DRBC web site at <http://www.state.nj.us/drbc/> and <http://www.state.nj.us/drbc/meetings/advisory/>. The WMAC will be holding their next meeting on October 22, 2015 and will be talking about Groundwater resources.

### **DNREC Water Allocation Program** – William Cocke and Allison Diggins, DNREC

The staff from the DNREC Water Allocations program provided a brief summary of the responsibilities of this program including evaluation of water use; issuing well permits for irrigation, dewatering, and some public wells; reviewing annual water use reports (including improving and expanding on-line water use reporting); and maintaining water use and water allocation permittee databases.

**Next Meeting** – John Barndt announced the next meeting tentative for October 7, 2015

**12:00- Adjourn**

**ADDENDUM to the July 29 WSCC Meeting Minutes:**

At the July 29 WSCC meeting, I offered an off-the-cuff 10 minute (+) commentary on the UWD and City of Wilmington "water supply sufficiency reports" submitted earlier for WSCC approval. On your suggestion, I promised to repeat those comments in memo form for attachment to the meeting minutes as a supplement.

Below under a line of #####, is that memo. Except for the paragraph by paragraph description of the requirements of the prevailing statute, the memo follows closely not only my recollection of what I said at the meeting, but also the order in which I said it.

The memo is formatted merely as an e-mail, with paragraphs and headings separated by blank lines headed by a period. Effectively that enables the recipient's computer settings (rather than the sender's) to determine font selection and size. Obviously that enables changing the format to match or to contrast with the minutes, according to your preference.

My distribution list, from earlier WSCC correspondence (your 6/05/2015 e-mail), is at the bottom of my memo. I'm sending in three increments to avoid my server's mass mailing limitations.

Vic

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**Delaware Water Supply Coordinating Council (WSCC)**

**Attachment for July 29, 2015 Meeting Minutes**

**Fleshing Out Citation of Vic Singer's Comments on Sufficiency Reports**

Those who attended WSCC's 7/29/2015 meeting may well remember that I commented critically for about ten minutes (off the cuff) on two of the Sufficiency Reports, one from United Water Delaware and the other from the City of Wilmington. Also, as noted in the draft Meeting Minutes, I promised to repeat my comments in memo form later, timed for attachment to the final meeting minutes. This is that memo.

**WHAT THE LAW REQUIRES**

The governing statute is Chapter 14 of Title 26 of the Delaware Code, Sections 1401 thru 1408, which is readily available at <http://delcode.delaware.gov/title26/c014/index.shtml> . Therein, Section 1404 requires that each public water utility serving New Castle County north of the C&D Canal, whether or not that utility is subject to regulation by the DE Public Service Commission under 26 Del. C. 201, submit at three year intervals two reports to the Water Supply Coordinating Council for its approval: 1) a "consumer water conservation plan" and 2) a "certification of adequate supply." Subsection 1404(c) requires that

. . . ". . . With the certification, the water utility shall provide supporting  
. . . materials and documents that identify each source of supply and  
. . . the volume of water available from each source. The supporting  
. . . materials and documents must demonstrate that, for the projected  
. . . year, the volume of supply from the water utility's sources will be  
. . . adequate to meet or exceed the projected demand."

I haven't searched for the frequently used cover statement "singular includes plural" that's probably in Title 26 somewhere. But it's easy for me to read into the quoted text that the phrase "projected year" might better have been "projected years" in light of the three year reporting interval.

It's even easier to read into the second quoted sentence that the "certification of adequate supply" must show no less than a summary of the supporting materials and documents. The clear legislative intent is that the report be free-standing rather than a roadmap to other documents elsewhere, which may well be less readily available. It shouldn't even refer the reader to the report submitted three, six or nine years ago. Text from the older report that hasn't changed needs merely to be pasted into the current report, to spare the reader the burden of chasing it down. There's no prohibition against tagging such inclusions as identical to text from some prior document, with or without distinctive font or format.

At Subsection 1402 (3) the statute defines "drought of record" as a 75 day period or a longer period that WSCC is empowered to establish during which record low streamflow and/or groundwater conditions prevail. Subsection 1402 (7) defines "projected demand" as the anticipated demand (expressed daily or otherwise) during a drought of record, which a sufficient water supply must be capable of spanning. Section 1403 requires that WSCC publish by March 1 of each reporting year the projected demand for each affected water utility. And Subsection 1404 (d) requires that for reporting year 2009 and thereafter, each water utility must certify that "none of its sources of supply for use during a drought of record are reliant on contracts with out-of-state water authorities or utilities" except for minimum purchase obligations established in 2003 or earlier.

#### THE UNITED WATER DELAWARE (UWD) REPORT

The UWD report attributes a 20.8 mgd projected demand to the WSCC. The unmentioned premise is that it refers to 2018. The UWD report tabulates a variety of identical available supplies for the 2015 and 2018 summers totaling 33.40 mgd. This includes 1.02 mgd from out of state, 7.53 mgd from the City of Wilmington, and 75 mg of ASR, amounting to 1.0 mgd over 75 days.

The UWD report refers the reader to the Supply Certifications filed with the PSC in 2006 and 2009 for supporting information rather than providing that information anew. Thus the report is not free-standing as the statute requires. Further, since the WSCC has lengthened the duration of the drought of record (as authorized by the statute), the 75 mg of UWD's ASR can be counted on for less than 1 mgd for the lengthened duration.

#### THE CITY OF WILMINGTON REPORT

The Wilmington report attributes a 2018 projected demand of 21.6 mgd to the Water Resources Agency (acting for the WSCC). The City confronts that demand with an available supply of 38.3 mgd exclusive of Hoopes Reservoir's additional 1950 mg usable capacity (26 mgd over a 75 day drought).

There is no mention of any obligation to serve population or territory beyond the city's own service area, and no mention of whether the 21.6 mgd projected demand includes or excludes such an obligation. The contract under which 7.53 mgd is transferred to UWD is neither shown nor mentioned in the report. That omission is far more important than just the sufficiency report, because of the following facts of life.

The Brandywine River is a major water source for both Delaware and Pennsylvania water utilities. But there has never been an allocation proceeding to establish how large are the respective withdrawal rights of the two states. The court with jurisdiction to try the interstate question is the Delaware River Basin Commission, which was formed long ago as a "compact" involving four states (DE, PA, NJ and NY) and the Federal Government. What entities may be entitled to how large a share of Delaware's interstate allocation, an intrastate question, is beyond DRBC's jurisdiction.

The compact establishes the "Equitable Apportionment Doctrine" as the prevailing water law for competing claims between states. The Equitable Apportionment Doctrine, conceived to reconcile the older "Riparian Rights" or "First Appropriation" doctrines which contradict one another, is also the prevailing water law for settling intrastate disputes within Delaware.

In Equitable Apportionment, competing claims are weighed according to the relative needs of the claimants. Those needs, however, vary in time according to when and how rapidly economic growth happens on opposite sides of the state line. At such a time when economic growth on both sides of the state line fully accounts for the drought flow of the stream, an allocation proceeding will be inevitable, and how much storage capacity already exists will be among the considerations. In practice, therefore, what is equitable can vary according to how much weight the court gives to which among the various points raised in the proceeding; what is equitable is whatever the court says is equitable.

By far the cheapest way for Pennsylvania interests to increase their share of drought flow in the Brandywine is to diminish Delaware's share. Hoopes Reservoir was built more than 70 years ago. Its size testifies to the expectation back then that Hoopes would serve an area far larger than what is contained within Wilmington's city limits. What actually happened, however, was a delay rather than a denial of that expectation. Economic development didn't just grow contiguously around the city. Instead to a substantial extent, it hop-scotched through the county. Thus it was often cheaper to sink a well and form a small water utility company than to build a pipeline to the nearest part of the Wilmington system. In the interim, the small water companies consolidated into the bigger ones that still exist, a trend that is now being repeated in downstate Delaware.

Delaware's investment in Hoopes Reservoir more than 70 years ago has been matched by more recent upstream investments in storage (also known as flow stabilization) capacity in Pennsylvania, that Delaware interests did not contribute to. When the inevitable allocation proceeding becomes timely, reservoir capacity will get a lot of attention. How large are the commitments to serve will also get a lot of attention. It follows that Wilmington's commitment to UWD and/or New Castle County - - which Wilmington's (draft 2015) sufficiency report doesn't mention - - must get due attention in Wilmington's (final 2015) sufficiency report.

#### A GENERAL COMMENT

The governing statute is silent on the need for a "margin of safety" defining how much capacity beyond anticipated demand is appropriate. The 2018 requirement would be satisfied if the available supply and anticipated demand were equal to one another. Indeed, the magnitude of the reported "excess" capacity could easily be regarded as lavish investments of public moneys in capital plant not needed in the public service, for which WSCC could be severely though erroneously criticized.

The sufficiency report is a look at a future no more than three years hence. Nearly from its start, however, the WSCC has been looking at a more distant horizon. It has required public water supply systems for New Castle County north of the C&D Canal to be configured to accommodate projected needs of a growing population decades into the future, assuming recurrence of the most severe drought of record, without curtailment of even domestic irrigation (lawn and landscape plant watering), to be achieved before WSCC's statutory sunset date. The evident margins of safety signal the achievement of that monumental task by WSCC, with virtually no authority to compel behavior, armed only with the force of its logic and the enthusiastic support of the water suppliers.

Vic Singer